

多歧苏铁的修订*

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NOTES ON *CYCAS MULTIPINNATA*

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Abstract A more detailed description of a rare and endangered species *Cycas multipinnata* C. J. Chen et S. Y. Yang from SE Yunnan, China is given. Male and female cones of this species is described for the first time. *Cycas longipetiolula* D. Y. Wang is reduced and treated as a new synonym of the species.

Key words *Cycas multipinnata*; *C. longipetiolula*; Cones

关键词 多歧苏铁; “长柄叉叶苏铁”; 雌雄球果

多歧苏铁

Cycas multipinnata C. J. Chen et S. Y. Yang in Acta Phytotax. Sin. **32**:239 et 480, pl. 1. 1994; C. J. Chen *et al.* in Vorster ed. Proc. of Third Intern. Conf. on Cycad Biol. 188. 1995. Type: China, cultivated in Panzhihua Botanical Garden, Sichuan, introduced from Pingbian along the Yuanjiang River (Red River), alt. ca. 600 m, 1987-04, S. Y. Yang 9202 (holotype, PE). — *Cycas longipetiolula* D. Y. Wang in F. X. Wang *et al.* eds. Cycads In China 68, pl. 11 et fig. 6. 1996, syn nov. Type: China, Yunnan, Pingbian, Yuanjiang River valley, 1995-04-23, D. Y. Wang & H. Peng 5523 (holotype, SZG!).

Stem almost subterranean, 20~40 cm tall, 15~25 cm in diam; bark dark grey, nearly smooth downwards, scaly above, foliar traces nearly semiorbicular, 7~12 × 3.5~5 cm, crown without tomentum. Leaves 1 (or 2), 3-pinnate, nearly flat, trullate in outline, 3~7 × 0.6~1.8 m; petioles subterete, 1.5~4 m long, 3~6 cm wide, triangular-orbicular in cross section, base 6~12 × 3~7 cm, sparsely pubescent; spines 30~50 on each side except both

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ends, compressed conical, 2~5 cm apart; primary pinnae 12~22-paired, spreading at 60~90°, open keeled in cross section at 100~130 to rachis, lanceolate; middle pinnae largest, 45~90×20~30 cm; basal and apical pinnae gradually shorter, 25~70×12~35 cm; secondary pinnae fan-shaped or obtriangular, 20~40×5~25 cm, dichotomously (2~) 3~5-forked, petiolules 0.5~5(~8) cm long; pinnules (segments) papery, obovate-linear, 7~18×1~2.5 cm, base decurrent, glabrous, margin entire or somewhat wavy, apex caudate or caudate-acuminate; midrib slightly elevated on both surfaces. Male cones cylindric or fusiform-cylindric, 25~35×8~10 cm; microsporophylls obovate-cuneate, 1.2~2.2×0.8~1.0(~1.5) cm, tomentose, with 4~10 denticles on top margin, apex acute. Female cones with 40~70 megasporophylls, oblate, 20~32 cm wide; megasporophylls 8~15 cm long, yellow-brown tomentose, glabrescent with stalks 6~10 cm long, upper sterile blade ovate-triangular, 5~7×4.5~6.5 cm, deeply divided into 13~17 subulate lobes 2~3.5 cm long and terminal one 3~5 cm long; ovules 3~5 on each side, glabrous. Seeds 6~10, obovoid-globose, slightly compressed, 2.5~3.2×2.3~2.8 cm, greenish to yellowish-brown; sclerotesta finely verrucose, apex mucronate. Pollination April~May, seed maturity October-November.

Endemic to China. It is restricted in a small area on the border of Gejiu City, Pinbian County, Hekou County and Menzhi County at 103°32'49"~103°28'19" E and 22°59'48"~23°4'5"N. It grows on a red soil derived from granite or limestone, in shaded rain forests along north valley of Yuanjiang River at elevations of 200-1000 m.

Cycas multipinnata usually has tripinnate leaves, but sometimes bipinnate especially during young, developing period, and with longer petiolules. So *C. longipetiolula* D. Y. Wang, which was described from the same area, should be treated as a synonym here. This species with its multipinnate leaves is the most unique of all the extant cycads. It is also the most endangered cycad in China as a result of damaging forests to open up farmland, and over collection by commercial dealers.

中国特有种。产云南东南部元江流域,个旧、蒙自、屏边与河口交界处,海拔 200-1000 m,生热带雨林下阴湿处。

本种常具三回羽状复叶,但有时,特别是未成熟时,为二回羽状,并具有较长的小叶柄。采自屏边的 *C. longipetiolula* Y. D. Wang 应归入本种。在现存苏铁科(狭义的)植物中唯有本种具多回羽状复叶的特征。